



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

N RE APPLICATION OF

Art Unit: 1643

L'EBEL ET AL.

**APPLICATION NO: 10/648,984** 

FILED: August 27, 2003

FOR: EXPRESSION OF TREHALOSE BIOSYNTHETIC GENES IN PLANTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants believe this paper is being filed before the mailing date of a first Office Action on the merits, and so under 37 C.F.R. §1.97(b)(3) no fees are required. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 19-0134.

In accordance with 37 C.F.R. §1.56, applicants wish to call the Examiner's attention to the references cited on the attached form(s) PTO-1449. The submission of these reference lists is made solely for the purpose of complying with Applicant's duty of disclosure, and is not intended as a surrender of patentable subject matter nor is it intended to create prosecution history estoppel.

Copies of these references are not enclosed since they were provided in the parent application no. 09/262,615.

The Examiner is requested to consider the foregoing information in relation to this application and indicate that each reference was considered by returning a copy of the initialed PTO 1449 form(s).

Respectfully submitted,

Syngenta Biotechnology Inc.
Patent Department
P.O. Box 12257
Research Triangle Park, NC 27709-2257
(919) 765-5071

Date: August 4, 2004

Mary Kakefuda Agent for Applicants Reg. No. 39,245 FORM PT 1449 (REV. 7-85)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

## **INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

ATTY. DOCKET NO. 30427USDIV2 APPLICATION NO. 10/648,984 APPLICANT Lebel et al. FILING DATE Aug. 27, 2003

Group 1649

Ma	<u>_8/</u>									
EXAMINER EXAMINER	ART		U.S.	PATENT DOCUMENTS						
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CI	ASS SUBC	ASS	FILING DATE		
	AA	5,422,254	6/6/95	Londesborough et al.	435	097	:	2/28/92		
	AB	5,792,921	8/11/98	Londesborough et al	800	205	1	8/15/95		
	AC									
•.	AD									
	AE									
	AF									
•	AG									
	АН									
-	Al									
	AJ									
	AK									
	AL									
			FOREIG	ON PATENT DOCUMENTS						
		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRA YES	NSLATION NO		
	AM	WO 95/01446	1/12/95	PCT						
	AN	WO 96/00789	1/11/96	PCT						
	AO	WO 97/42327	11/13/97	PCT						
	AP									
	AQ									
	· -	OTHER DOC	UMENTS	(Including Author, Title, Date, Pertine	nt pages, E	Etc.)				
	AR			nd molecular characterization of synthase," Plant Journal, 13(5): p			1 gene	Э,		
	AS	Goddijn, O. J. M. et al. "Inhibition of Trehalose Activity Enhances Trehalose Accumulation in Transgenic Plants," Plant Physiology, 113: pp181-190 (1997)								
	АТ	Holmstrom, K-O., "Drought tolerance in tobacco," Nature, 379: pp683-684 (1996)								
EXAMIN	ER	<del>                                      </del>	<del> </del>	DATE CONSIDERED						

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

FORM PTQ-1449 (REV. 7-85)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

#### INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO. 30427USDIV2 APPLICATION NO. 10/648,984 APPLICANT Lebel et al. FILING DATE Aug. 27, 2003

Group 1649

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	OTTIER DOOGNERTTO (including Audior, Tide, Date, Perdirent pages, Etc.)
AA2	Kaasen, I. et al., "Analysis of the otsBA operon for osmoregulatory trehalose synthesis in Escherichia coli and homology of the OtsA and OtsB proteins to the yeast trehalose-6-phosphate synthase/phosphatase complex," Gene, 145: pp9-15 (1994)
AB2	Kassen, I. et al., "Molecular Cloning and Physical Mapping of the otsBA Genes, Which Encode the Osmoregulatory Trehalose Pathway of Eschrichia coli: Evidence that Transcription Is Activated by KatF (AppR)," Journal of Bacteriology, 174(3): pp889-898 (1992)
. AC2	Lebel, E. et al., "Chemical Regulation of Transgene Expression in Plants," Abstract for Biochemical Society Symposium: Engineering Crops for Industrial Ends in Bristol, UK (1996)
- AD2	Muller, J. et al., "Pools of non-structural carbohydrates in soybean root nodules during water stress," Physiologia Plantarum, 98: pp723-730 (1996)
AE2	Muller, J. et al., "Trehalose and trehalase in plants: recent developments," Plant Science, 112:pp1-9 (1995)
AF2	Pilon-Smits, E. A. H. et al., "Trehalose-Producing Transgenic Tobacco Plants Show Improved Growth Performance Under Drought Stress," Journal of Plant Physology, 152: pp.525-532 (1998)
AG2	Romero, C. et al., "Expression of yeast trehalose-6-phosphate synthase gene in transgenic tobacco plants: pleiotropic phenotypes include drought tolerance," Planta, 201: pp293-297 (1997)
AH2	Salminen, S. O. et al., "Enzymes of a,a-Trehalose Metabolism in Soybean Nodules," Plant Physiology, 81: pp538-541
Al2	Vogel, G. et al., "Trehalose-6-phosphate phosphatases from Arabidopsis thaliana: identification by functional complementation of the yeast tps2 mutant," Plant Journal, 13(5): pp673-683 (1998)
AJ2	Vuorio, O. E. et al., "Cloning of two related genes encoding the 56-kDa and 123-kDa subunits of trehalose synthase from the yeast Saccharomyces cerevisiae," Eur. Journal of Biochemistry, 216: 849-861 (1993)
AK2	
AL2	
AM2	
AN2	
EXAMINER	DATE CONSIDERED

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

FORM PTO-1449 (REV. 7-85)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

#### INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO. 30427USDIV2 APPLICATION NO. 10/648,984 APPLICANT LEBEL ET AL. FILING DATE August 27, 2003

Group 1643

			<b>U.S.</b> I	PATENT DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLA	SS SUBCLA	SS I	FILING DATE
	AA							
•	AB					į		
	AC							
	AD							
	AE							
•	AF							
4	AG							
	АН							
	Al							
	AJ							
	AK							
	AL							,
,			FOREIG	N PATENT DOCUMENTS				
		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRAI YES	NSLATION NO
	AM	9317093	9/2/93	wo				
	AN	9514098	5/26/95	wo				
	7 11 1	9514096	1					<del> </del>
	AO	9514098	9/14/95	WO				
	<del> </del>			wo				
	AO	9524492	9/14/95				$\vdash \equiv$	+=-
	AO AP	9524492 9803536	9/14/95 1/29/98		ent pages, E	tc.)		
	AO AP	9524492 9803536 OTHER DOC	9/14/95 1/29/98 UMENTS	WO (Including Author, Title, Date, Pertine	ent pages, E	tc.)		
	AO AP	9524492 9803536 OTHER DOC	9/14/95 1/29/98 UMENTS	WO	ent pages, E	tc.)		
	AO AP AQ	9524492 9803536 OTHER DOC	9/14/95 1/29/98 UMENTS	WO (Including Author, Title, Date, Pertine	ent pages, E	tc.)		
	AO AP AQ AR	9524492 9803536 OTHER DOC	9/14/95 1/29/98 UMENTS	WO (Including Author, Title, Date, Pertine	ent pages, E	tc.)		

<sup>\*</sup>EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

## FILING BY "FIRST CLASS MAIL" UNDER 37 C.F.R. § 1.8

Thereby certify that the following correspondence is being deposited with the United States Postal Service as "First Class Mail" with proper postage in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 4, 2004.

- 1) Information Disclosure Statement
- 2) Form PTO-1449
- 3) Return Postcard

Melissa Hardy

Name

Signature